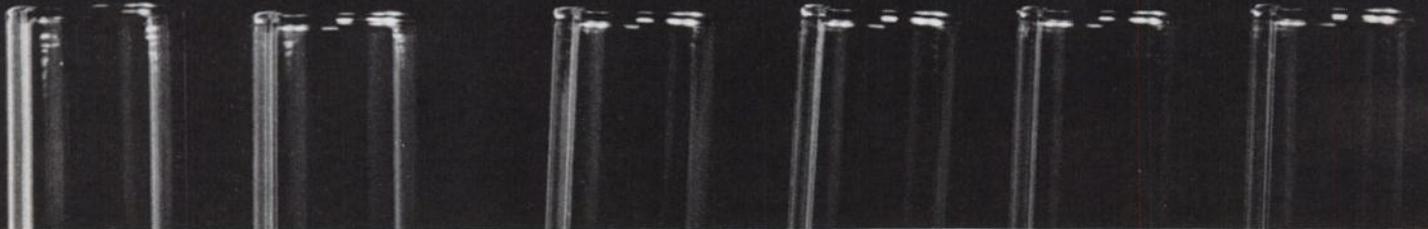




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The Triosorb Sponge is an in vitro test providing accuracy, speed and convenience.

Accuracy: Because factors such as red blood cells and exogenous iodine have been eliminated from consideration in the Triosorb Test, it is unsurpassed in accuracy.

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Convenience: Available in a disposable kit ready for immediate use at room temperature. There is no dilution or pipetting of radioactive materials with Triosorb. It is the simplest and most convenient thyroid function test to perform.

“The resin sponge (Triosorb) technique is superior to the erythrocyte method for performing the I^{131} T3 test in terms of simplicity, convenience and elimination of errors characteristic of the erythrocyte procedure.”¹

“The T-3 uptake test was vastly improved by a resin-sponge . . . (Triosorb) . . . which is offered as a replacement for the red cells as well as for the loose granular resin which varies from day to day.”²

**Triosorb is available to all doctors, hospitals and clinical laboratories—
AEC licensing is not required.**

1. McAdams, G. B., and Reinfrank, R. F., J. Nuclear Med., 5:112, 1964.
2. Manfredi, O. L., et al., J. Nuclear Med., 7:72, 1966.

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TRIOSORB®-131 TRIOSORB-125

T-3 DIAGNOSTIC KIT

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Irosorb-59 is the second in a series of **in vitro** radio-pharmaceutical tests developed by Abbott Laboratories. **The Irosorb-59 Sponge offers a remarkable degree of accuracy and simplicity that makes routine screening a practical matter.**

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Speed: Irosorb-59 can be washed quickly, there being only 3 washes. No incubators or shakers are needed.

Convenience: Irosorb-59 is in a disposable kit form ready for immediate use at room temperature.

Safety: No dilution or pipetting of radioactive material is necessary. Since the patient receives no radioactive materials, the test can be used in children, pregnant women, or in adults without any hazard of radioactivity.

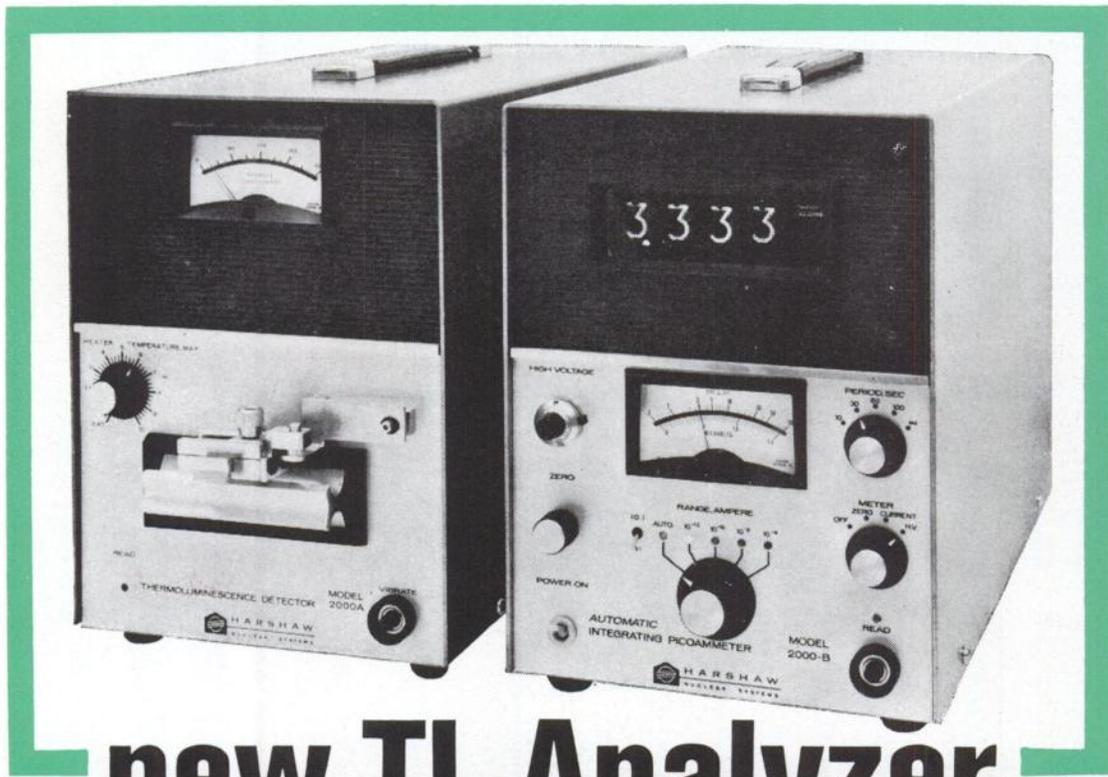
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**Irosorb-59 is available to all doctors, hospitals and clinical laboratories—
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new TL Analyzer

Harshaw's Model 2000 Thermoluminescence Analyzer. Designed for general radiation dose measurements with the sensitivity for personnel monitoring.

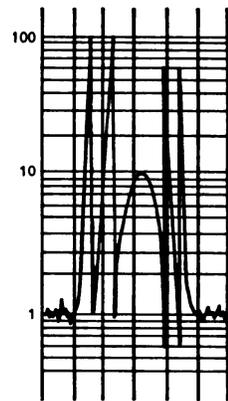
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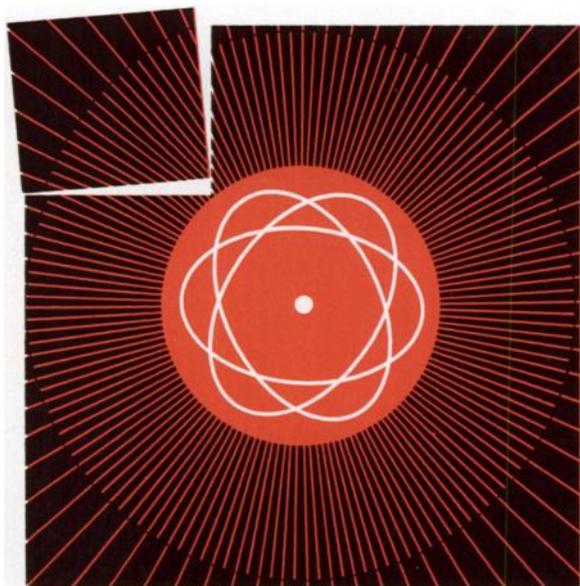
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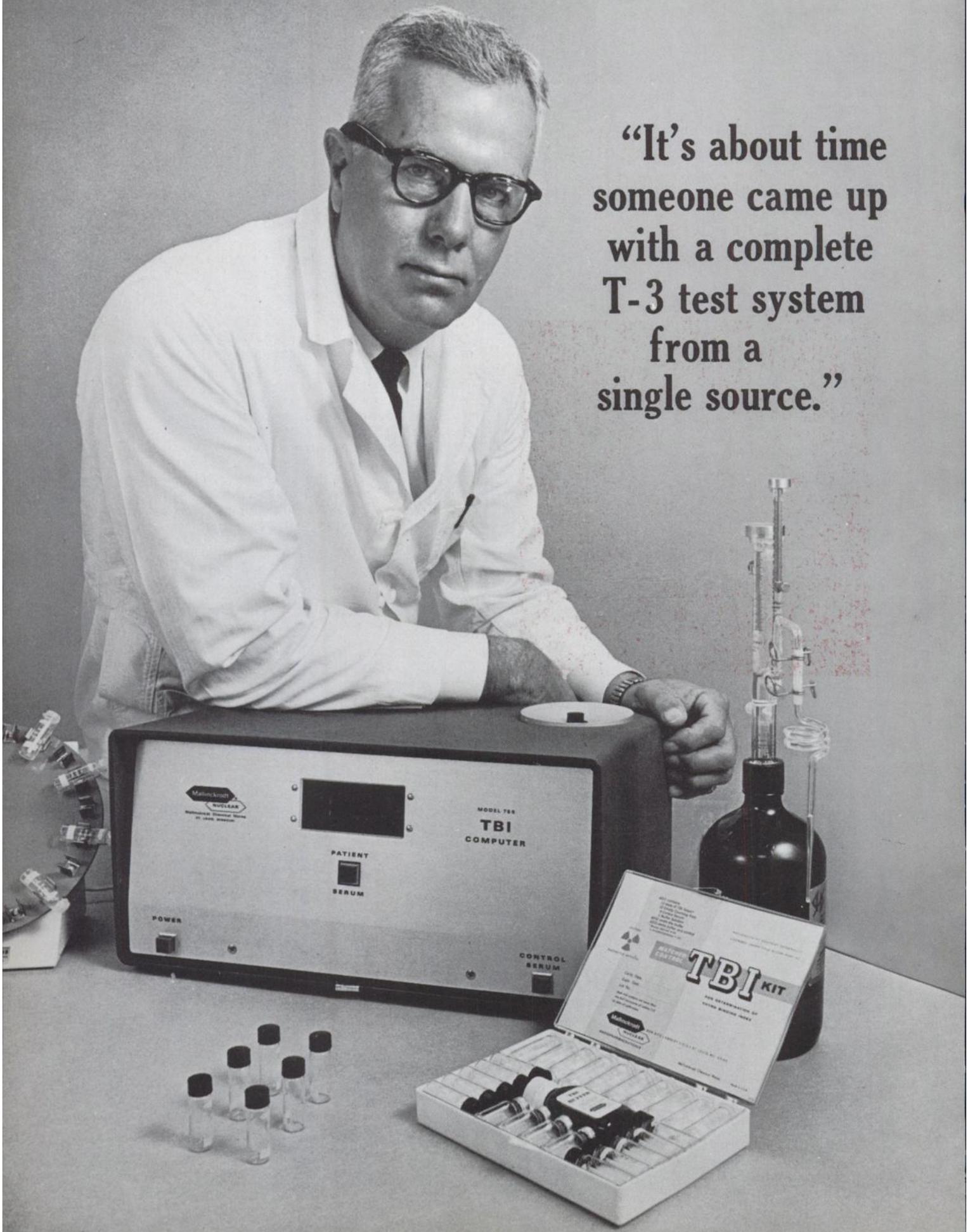
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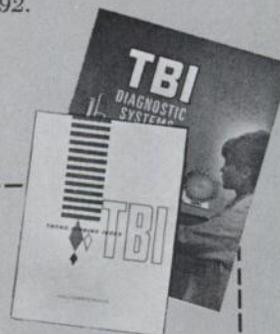
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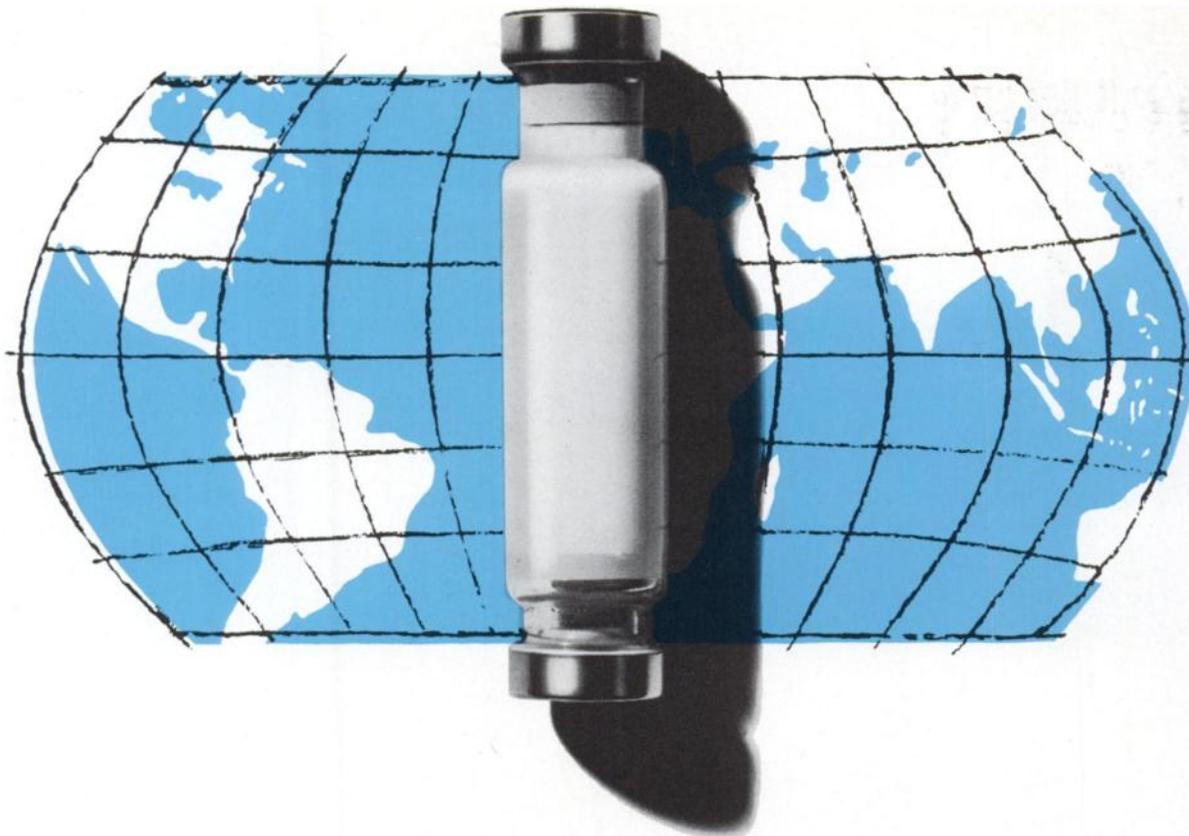
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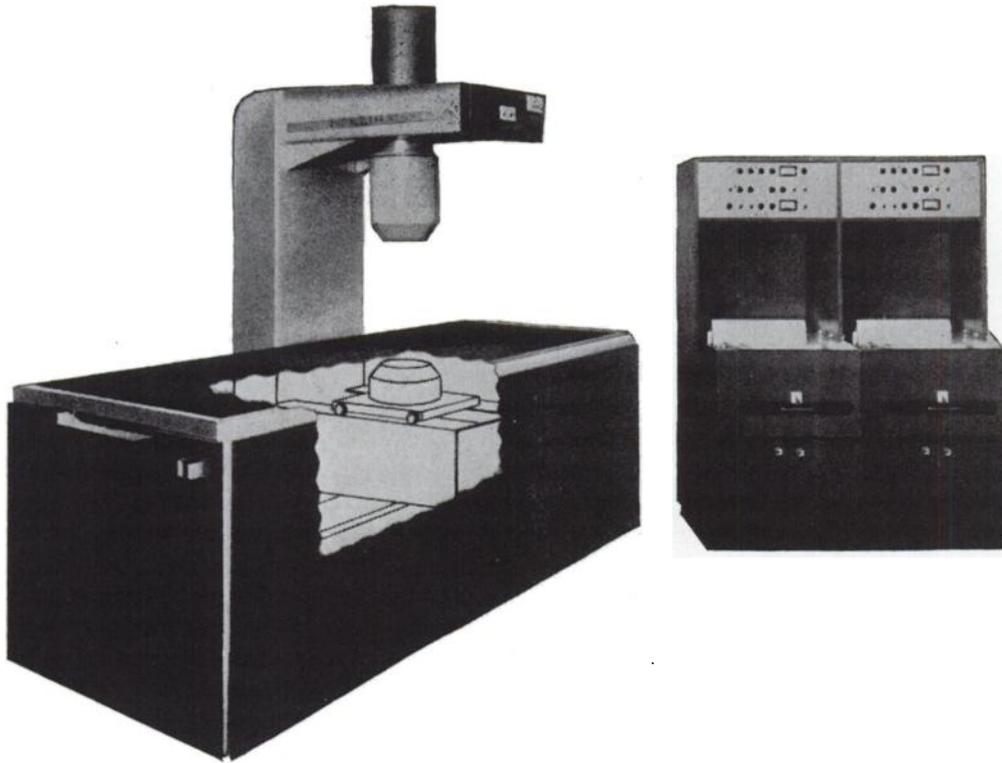
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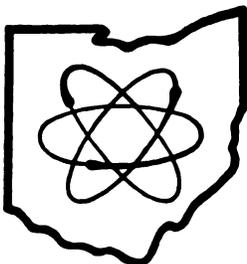
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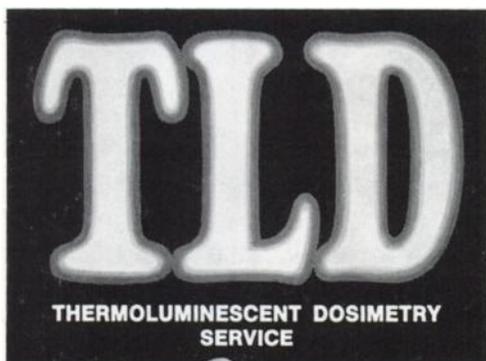
rapidly forcing the eluant through the Cs-137 column and extracting the Ba-137m. The emerging barium salt is sterilized by Swinney filter and collected in a flask, where it may be withdrawn by hypodermic syringe.

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PRELIMINARY NOTES

Space will be reserved in each issue of THE JOURNAL OF NUCLEAR MEDICINE for the publication of one preliminary note concerning new original work that is an important contribution in Nuclear Medicine.

Selection of the preliminary note shall be on a competitive basis for each issue. One will be selected after careful screening and review by the Editors. Those not selected will be returned immediately to the authors without criticism. Authors may resubmit a rejected or revised preliminary note for consideration for publication in a later issue. The subject material of all rejected manuscripts will be considered confidential.

The text of the manuscript should not exceed 1,200 words. Either two illustrations, two tables or one illustration and one table will be permitted. An additional 400 words of text may be submitted if no tables or illustrations are required. Only the minimum number of references should be cited.

Manuscripts should be mailed to the Editor, Dr. George E. Thoma, St. Louis University Medical Center, 1504 South Grand Blvd., St. Louis, Missouri 63104. They must be received before the first day of the month preceding the publication month of the next issue, e.g., preliminary notes to be considered for the January issue must be in the hands of the Editor before December 1.



Guides to the safe, effective use of modern radiation techniques in diagnosis and therapy.

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PRINCIPLES OF NUCLEAR MEDICINE

Here is a practical appraisal of the fast-growing field of nuclear medicine—one that sets forth both present and potential values in augmenting current methods of medical diagnosis. With clarity and precision, Dr. Wagner and his expert contributors explain the physical, chemical and mathematical principles of nuclear medicine. The authors give you a comprehensive account of today's clinical applications ranging from a 60-page delineation of radiodiagnostic techniques in the thyroid gland to a 42-page discussion of radiation dosimetry. Uses for all types of radiation detecting and measuring equipment as well as for all types of radiopharmaceuticals are described. In addition the authors have skillfully correlated the new techniques of nuclear medicine with the more classical methods of diagnosis. Separate chapters are devoted to the application of radioactive tracer methods in diseases of *blood, lungs, circulation, digestive system, brain, kidney*, etc. Additional chapters advise you on the effects of radiation and radiation safety. A brief sampling of the scores of topics discussed includes: *radioassay of hormone plasma—radioisotope renography—brain scans—whole body counting—in vitro tests*, etc.

Edited by HENRY N. WAGNER, JR., M.D. of The Johns Hopkins Medical Institutions. With 34 contributors. About 900 pages. About 175 figures. About \$29.00. Ready January, 1968

CLINICAL RADIATION PATHOLOGY

The authors of this important new work present an authoritative and critical study of the adverse effects of therapeutic radiation in the human body. Chapter by chapter, they systematically delineate the pathogenesis of radiation effects in all major tissues, organs, and organ systems.

The concept of relative radiosensitivity of cells according to their behavior with respect to the combination of: proliferation, differentiation and individual life span are first discussed. With this as a base, the authors explain relative radiation sensitivity throughout the body. For all common types of radiation injury in each body area, you'll find specific and practical information on *incidence, prevention and histologic change*. For most body systems, a special diagram summarizes the clinicopathologic course of various levels of radiation injury: acute, subacute, chronic and late periods.

This valuable work offers assistance in prescribing safe, effective modes of X-ray diagnosis and therapy and in recognizing and evaluating radiation damage.

By PHILIP RUBIN, M.D. and GEORGE W. CASARETT, Ph.D., both of the Univ. of Rochester School of Medicine. About 1200 pages. About 400 illus. About \$45.00. Two Volumes. Ready February, 1968

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By WALTER T. MURPHY, M.D. of the Buffalo General Hospital. 1020 pages. 1337 illus. \$45.00. *New (2nd) Edition Published June, 1967*

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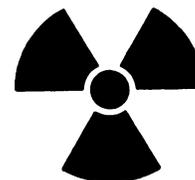
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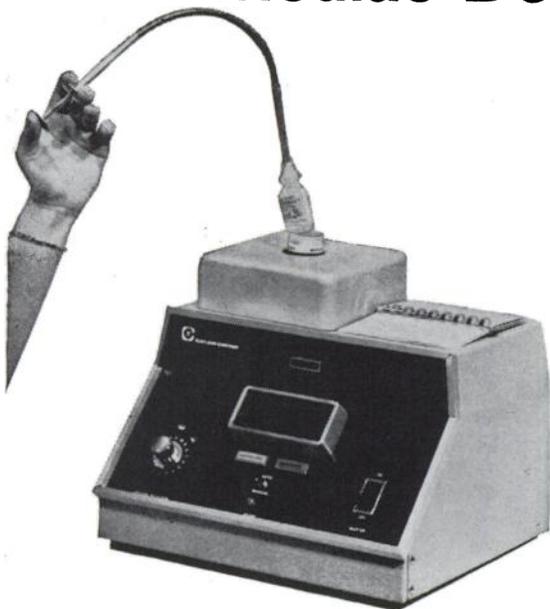
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Call for Papers: Nuclear Medical Technologists Program

The Society of Nuclear Medicine has set aside Thursday afternoon, June 27, 1968, from 1:30 to 5:00 pm for a nuclear medical technologists program at the 15th Annual Meeting in St. Louis, June 27-30, 1968.

The Scientific Program Committee welcomes the submission of abstracts for 12-minute papers from technologists for this session. Abstracts should have a maximum of 300 words and include the purpose of the study, the methods used and pertinent results or conclusions. Give the title of the paper and name(s) of author(s) and institution(s) as you wish them to appear in the program. Underline the name of the author who will present the paper. The original and six copies should be sent to:

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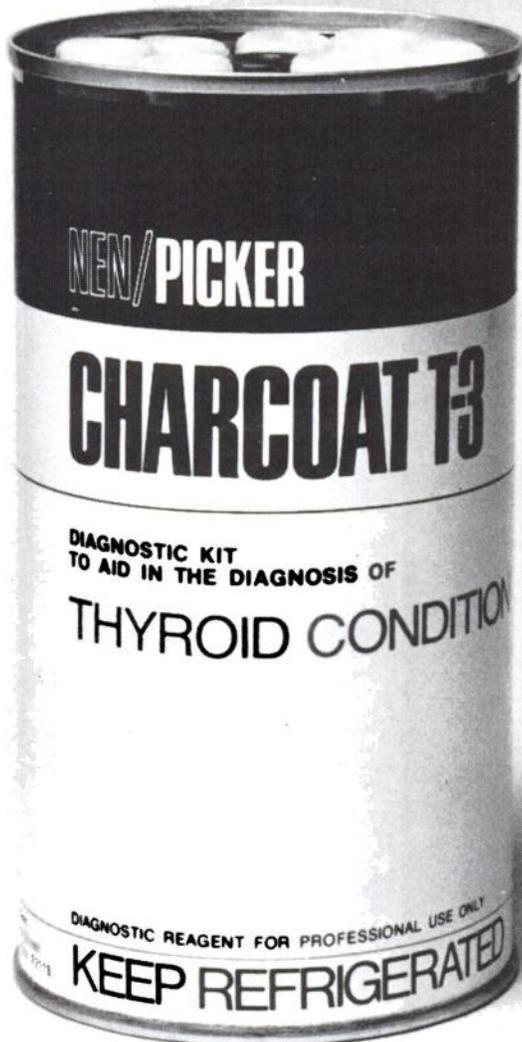
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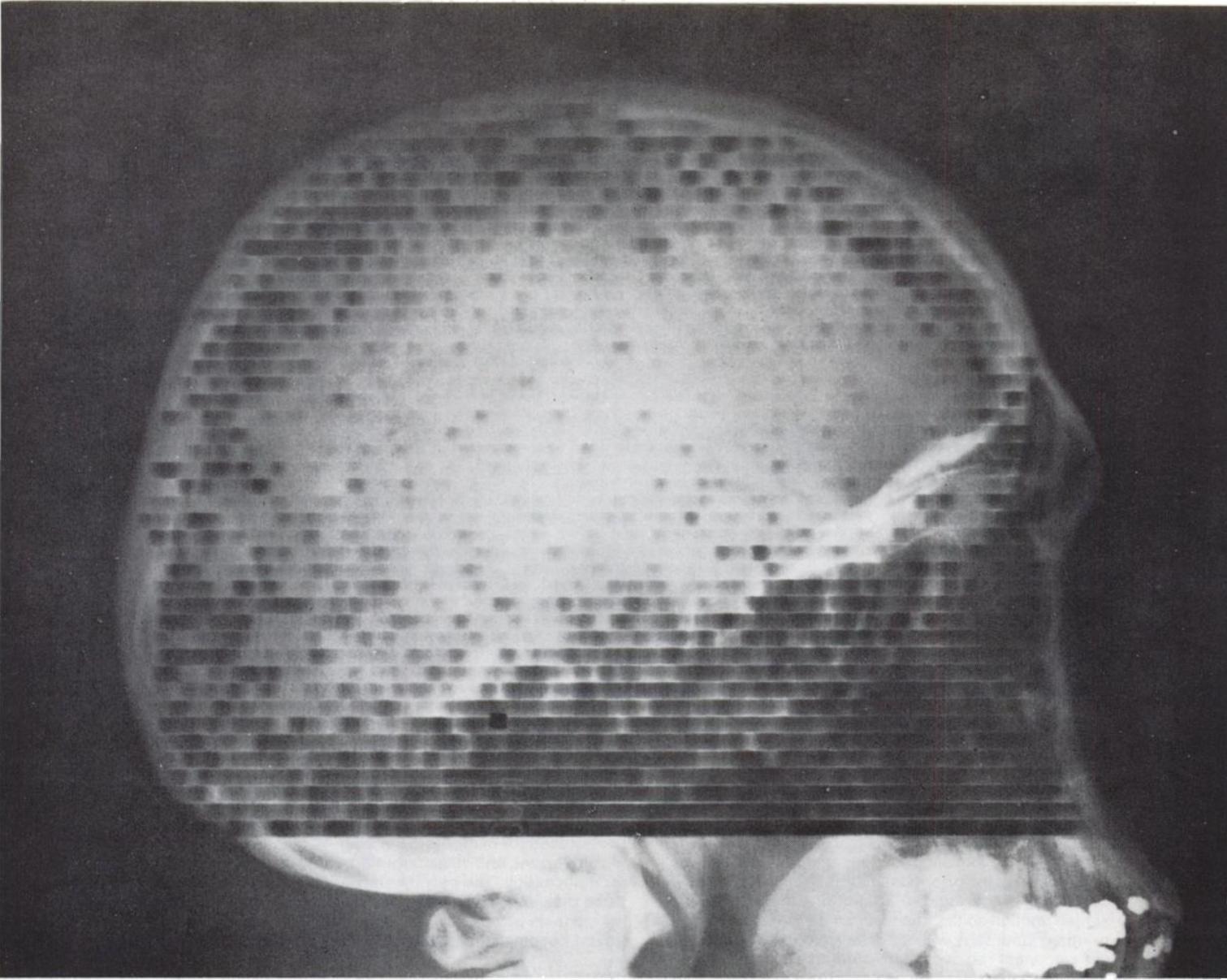
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INDICATIONS: Adjunctive diagnostic aid in detecting and localizing intracranial neoplastic (primary or metastatic) and non-neoplastic lesions.

CONTRAINDICATION: Radio-pharmaceutical agents should not be administered to pregnant women or to persons less than 18 years old unless the indications are very exceptional.

PRECAUTIONS: Care should be taken to ensure minimum radiation exposure to the patient as well as all personnel; to prevent extracranial contamination because this can lead to erroneous interpretation; and to differentiate areas of abnormal activity from areas of normal vascular activity.

704391



TM-TRADEMARK

Some significant advances in thyroid-testing technique



The Tresitope Diagnostic Kit offers significant refinements in the performance of the resin uptake test for thyroid function. First, it employs I^{125} which permits a much longer shelf life of test materials than I^{131} and also lowers radiation exposure to the technician. Second, the kit is completely self-contained—no other equipment is required. And, as an *in vitro* test, it avoids exposing patients to any ionizing radiation, and the results are unaffected by the prior administration of most iodine-containing preparations. Furthermore, the technique is simple enough so that the test can be run in any hospital or office laboratory with suitable isotope facilities, and the amount of radioactivity is sufficiently small so that no AEC licensing is necessary, provided that not more than 100 vials of Liothyronine I^{125} Buffer Solution are on hand at any one time.

The technical difficulties encountered in preparing different batches of resin sponges are avoided.

Moreover, because it is an *in vitro* test, it is diagnostically significant in the presence of unrelated nonthyroidal factors that are known to complicate interpretation of other test findings. More specifically, the test is unaffected by anxiety, hypertension, congestive heart failure, or administration of mercurial agents. And it is unaffected by prior administration of most iodine-containing preparations that can completely nullify the results of other thyroid function tests for considerable periods.

I^{125} versus I^{131}

The use of I^{125} rather than I^{131} to label the liothyronine employed in the test is also advantageous. Employing I^{125} considerably lengthens the shelf life of the liothyronine because I^{125} has a longer half-life and also because it emits no beta rays to affect the stability of liothyronine. The half-life of I^{125} is considered to be 60 days while I^{131} has a half-life span of approximately 8 days. Other advantages of I^{125} -labeled material include lowered radiation exposure to the technician, yet radioactivity is well within good counting range of modern standard equipment and *in vitro* counting is quite efficient.

In the continuing research for superior thyroid function tests, the *in vitro* Tresitope procedure represents important refinements in safety and simplicity—with longer shelf life of test material.

convenient, safe, and practical

The Tresitope Diagnostic Kit was specifically designed so that the test procedure is simplified and the possibility of radioactive contamination of the laboratory is minimized. The kit contains 10 capped vials, each containing Liothyronine I^{125} Buffer Solution (activity does not exceed 0.1 microcurie per vial), 10 plastic tubes of resin powder, and 10 separate droppers to avoid cross-contamination. The polystyrene carrier is also a test-tube rack, and it has been modified to facilitate washing of the resin powder. The reverse side of the package insert becomes the record sheet for test results.

NOTE: While the resin uptake test is a very useful aid in the evaluation of thyroid function, it should not be used as the sole basis for such an evaluation. In any patient, the clinical state is probably the best indication of thyroid status, and *any* laboratory test must be interpreted with caution when test results do not agree with clinical evidence.

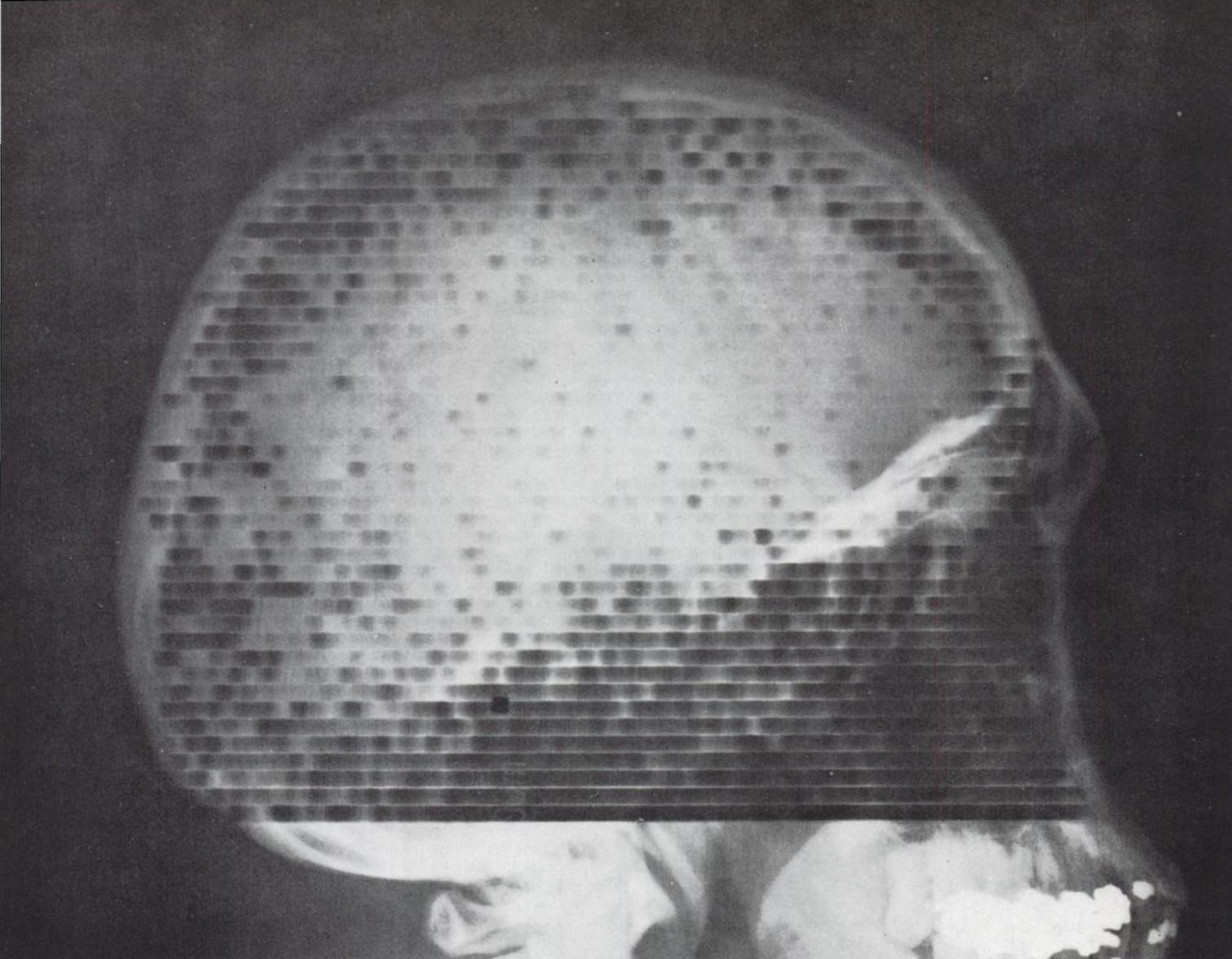
Precautions

Use appropriate radiation precautions in handling, identifying and discarding all radioactive material. Remember that minute amounts of radioactivity remain on components used in the test, including the polystyrene platform when it is used in performing the test, and particularly when the Tresitope Suction Method is used for a number of tests.

Tresitope® Diagnostic Kit

Squibb Resin Uptake Kit with
Liothyronine I^{125} Buffer Solution

SQUIBB 'The Priceless Ingredient' of every product
is the honor and integrity of its maker.



Abbott announces
PertscanTM-99m
SODIUM PERTECHNETATE Tc 99m

For brain scanning, Pertscan-99m provides more information with less radiation to the patient than any other related cerebral test—whether other radioisotopes or x-rays.

SPEED: Gives each projection fast—15 minutes or less with rectilinear scanners, 2 to 4 minutes with a camera.

CONVENIENCE: Supplied in a ready-to-use single dose vial.

SAFETY: Carrier-free, non-pyrogenic, sterile, and isotonic.

FLEXIBILITY: Oral or intravenous administration in two sizes: 10 millicuries in 4 ml. and 15 millicuries in 6 ml.

SHIPMENTS: Monday through Friday—and Sunday . . . allows scheduling of brain scans 6 days a week—Monday through Saturday.

INDICATIONS: Adjunctive diagnostic aid in detecting and localizing intracranial neoplastic (primary or metastatic) and non-neoplastic lesions.

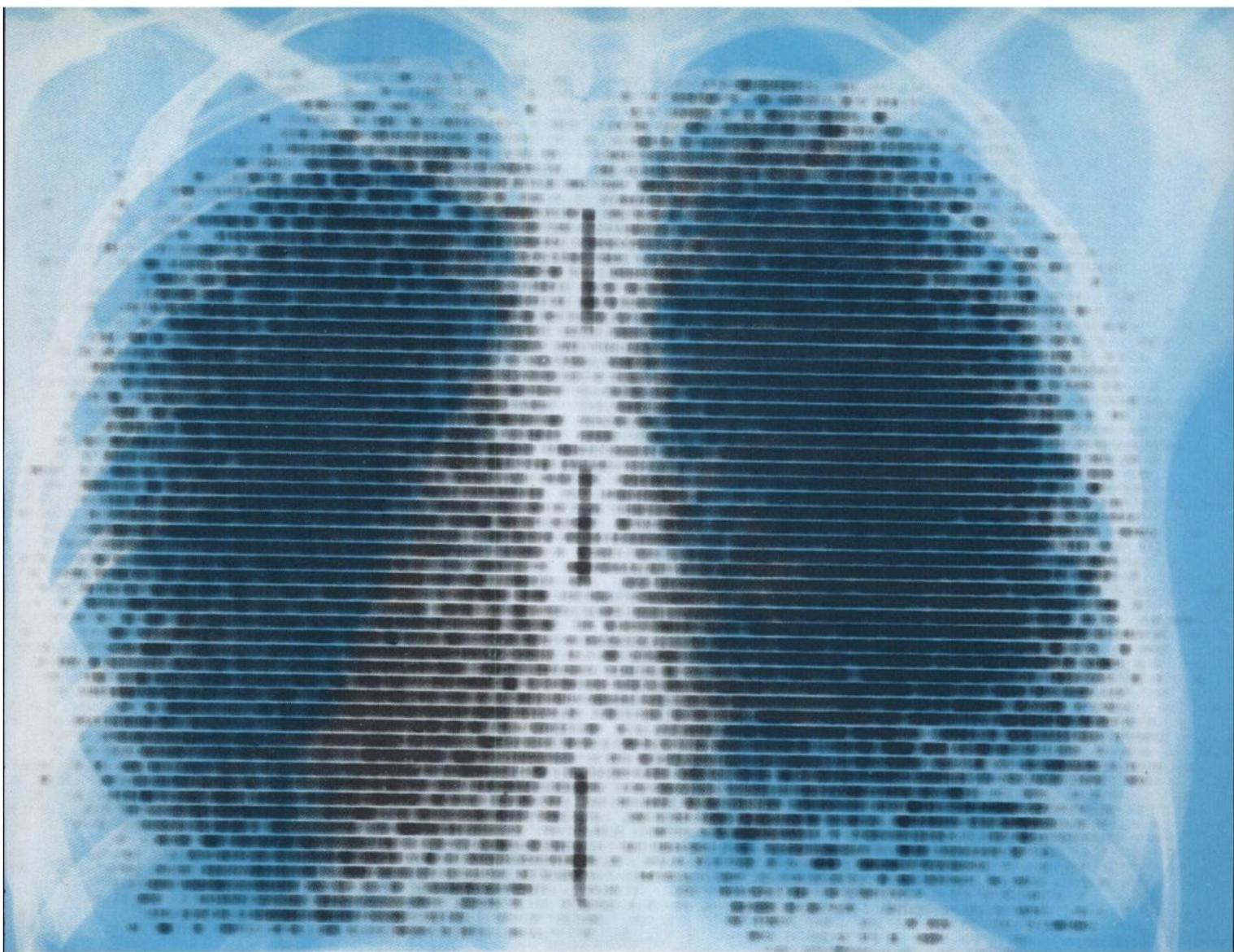
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Abbott announces **Macroscan™-131** AGGREGATED RADIO-IODINATED (¹³¹I) ALBUMIN (HUMAN)

If it's a pulmonary problem,
Macroscan-131 pictures it!

Pulmonary embolism, suspected: To confirm (or rule out) its occurrence.

Chronic pulmonary tuberculosis: To estimate unilateral and regional function and perfusion of the lungs.

Emphysema: To evaluate the degree of focal lack of perfusion.

Pneumonitis: To evaluate the decreased regional blood flow that occurs without obstruction of vessels.

Lung tumors: To evaluate the regional ische-

mia resulting from compression or obstruction of pulmonary arteries.

Surgery and/or other therapy for lung disorders: To evaluate the effectiveness of therapeutic measures.

Macroscan-131 is sterile and non-pyrogenic. It is ready to use and should not be heated prior to use.

INDICATIONS: For scintillation scanning of the lungs to evaluate total, unilateral, and regional arterial perfusion to the lungs.

CONTRAINDICATION: Radio-pharmaceutical agents should not be administered to pregnant women, nursing mothers, or to persons less than 18 years old unless the indications are very exceptional.

PRECAUTIONS, SIDE EFFECTS: Care should be taken to administer the minimum dose consistent with safety and validity of data. The possibility of an immunological response to albumin should be kept in mind when serial scans are performed. There is a theoretical hazard in acute cor pulmonale, because of the temporary small additional mechanical impediment to pulmonary blood flow. A possible case of urticaria has been related to a similar preparation. The thyroid gland should be protected by prophylactic administration of concentrated iodide solution.





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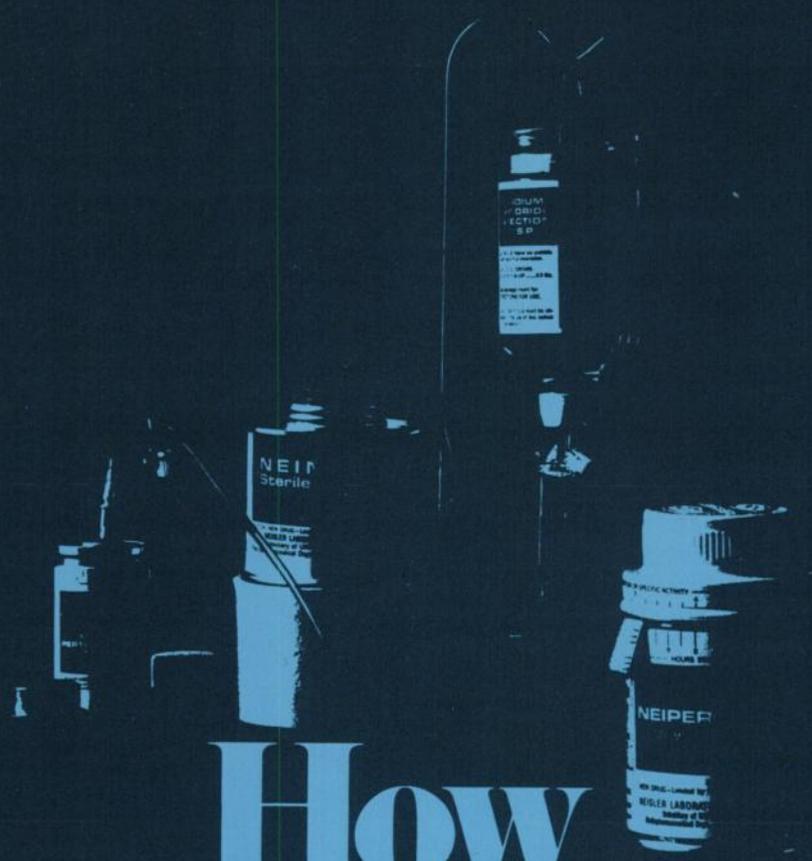
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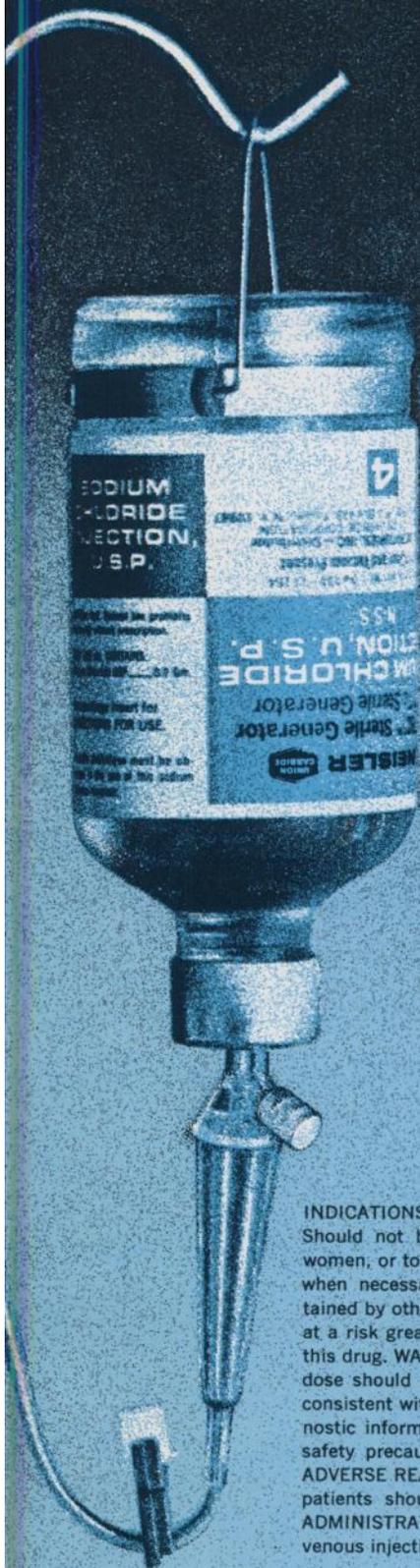
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New York time, on Mondays
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in nonreturnable lead
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INDICATIONS: Brain scanning. CONTRAINDICATIONS: Should not be administered to pregnant or lactating women, or to patients under the age of 18 years, except when necessary diagnostic information cannot be obtained by other types of studies or can only be obtained at a risk greater than the radiation exposure caused by this drug. WARNINGS: As with all radiopharmaceuticals, dose should be limited to smallest reasonable amount consistent with greatest value in terms of relevant diagnostic information. PRECAUTIONS: Approved radiation safety precautions should be maintained at all times. ADVERSE REACTIONS: None reported to date; however, patients should be carefully observed. DOSAGE AND ADMINISTRATION: 2 to 10 mCi, administered by intravenous injection.

Physicians should consult product package insert before administering.



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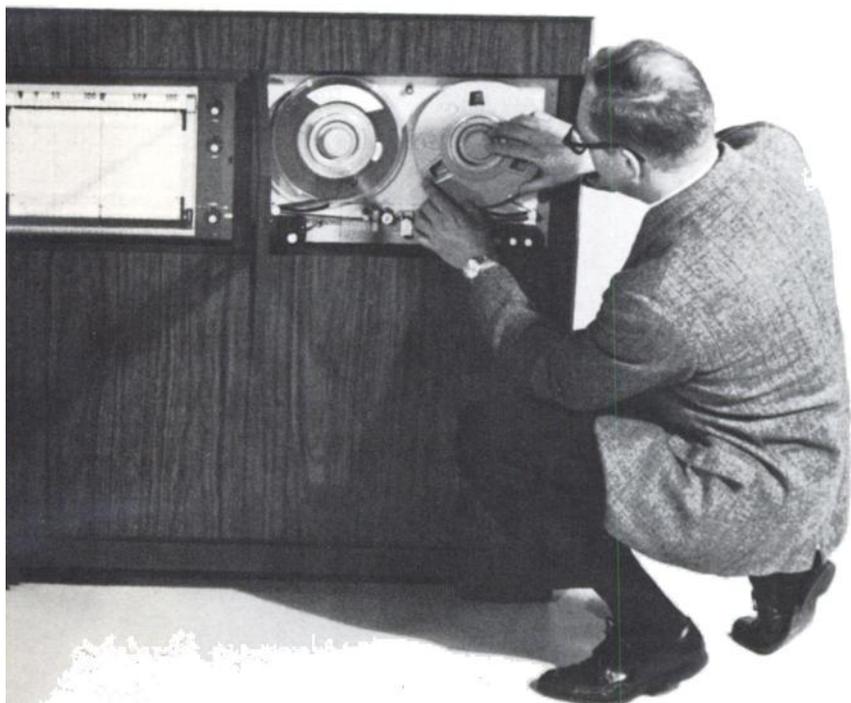
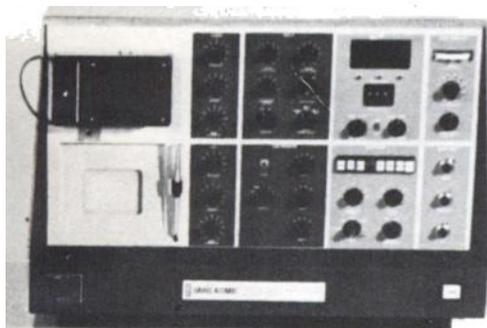
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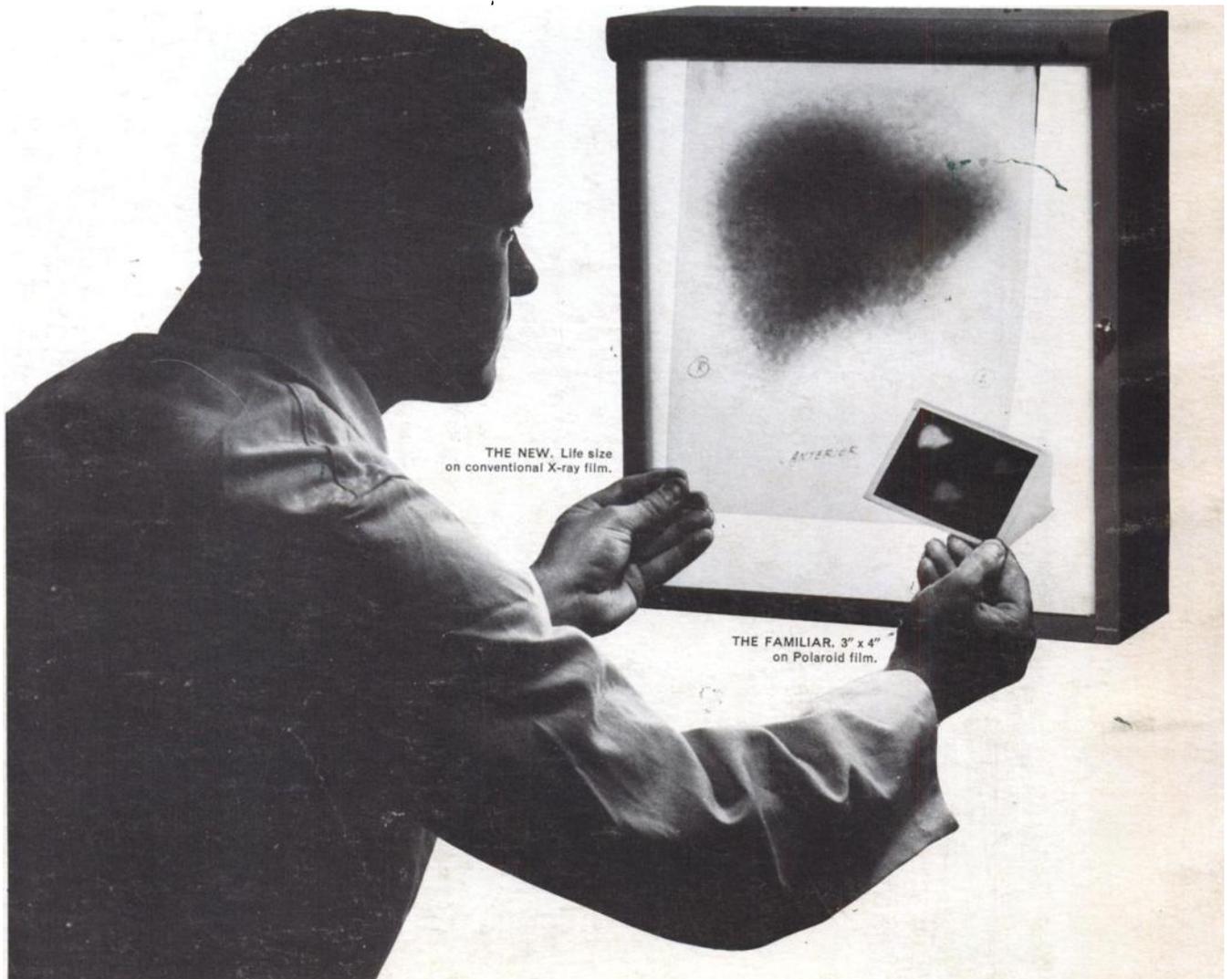
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